

# Prevent Heartworms in Pets Year-Round

If you've been to a veterinarian's office, chances are you've seen the photos on the wall of worms growing from the heart of a dog or cat. Although these images may be unsettling, the message is clear: Heartworm disease is fatal to pets. The good news: You can protect your pet from this disease.

"It's a preventable disease, which is why it's so frustrating as a practitioner when you see a case. Heartworm disease is very serious and the treatment is not very easy on infected animals," says Melanie McLean, D.V.M., a veterinarian at the Food and Drug Administration (FDA). "It's much easier and healthier for the pet to prevent the disease in the first place."

Heartworms are carried by infected mosquitoes that transmit parasitic worms that grow in the arteries of the lungs and heart of dogs, cats, and other species of mammals. The heartworm larvae enter the bite wound and move through the pet's body and can grow up to 12 inches long.

The disease is not contagious from one pet to another and heartworms in humans are very rare.

## Putting Pets at Risk

Veterinarians often prescribe heartworm prevention medicine for pets



to take year round. Due to the link to mosquitoes, some owners opt out of treating their pets during the winter months, but veterinarians see this as an unnecessary risk to the pet's health.

"You never know when the first mosquito is going to come out, or when the last mosquito is going to die. Heartworms have been reported in dogs in all 50 states and just because you live in a colder climate state doesn't mean that your dog is safe," McLean warns.

Animal owners who stop giving heartworm prevention medication during the winter run the risk of their dog or cat contracting heartworms. If the animal becomes infected and the heartworm preventative is later resumed without testing, the owner may be putting the pet in danger. The preventive medicine can kill so many microfilariae (the offspring of adult, female heartworms) at once that it could shock the animal's system, with potentially fatal results. Also, preventatives will not kill adult

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heartworms and they will continue to reproduce.

For this reason, testing your dog or cat prior to starting a heartworm preventive medication is essential, especially since pets that have heartworms may not show symptoms right away.

If your pet tests positive for heartworms, it's crucial to the success of treatment to follow the veterinarian's directions. There is only one FDA-approved drug that is marketed in the U.S. for the treatment of heartworm disease in dogs. Immiticide (melarsomine hydrochloride), which contains arsenic, is given by injection into the back muscles to kill adult heartworms.

Angela Clarke, D.V.M., team leader in FDA's Office of New Animal Drug Evaluation, also emphasizes the importance of yearly testing for heartworms—even if you've kept your pet on a steady regimen of preventatives. Dogs are tested for heartworms using a simple blood test.

"We recommend yearly checks because no drug is 100 percent effective and we want to make sure the drugs work," McLean adds. Also, owners often forget to give the preventative for a month or longer.

### **An Indoor Issue as Well**

Another major hurdle that veterinarians face is convincing owners of pets that rarely or never go outside to put those pets on a heartworm preventative.

"When I was in practice, I had owners who balked at heartworm preventative for their cats because they were

indoor cats," says Clarke. The team leader adds that mosquitoes that transmit heartworms can easily access the indoor environment and pets through open doors and windows.

Although cats are considered a resistant host to heartworms because the worms do not survive as well as in a dog's body, they are still at risk for heartworm disease. McLean said diagnosing heartworms in cats is not as easy, and testing is not as simple, or accurate. In addition to blood work, testing on cats can include X-rays and ultrasounds.

Unlike for heartworm disease in dogs, there is no FDA-approved treatment for killing adult heartworms in cats. Because of the additional complications associated with diagnosing and treating cats, prevention becomes the only weapon against heartworms in cats. It's best to place both indoor and outdoor cats on a year-round FDA-approved heartworm preventative.

### **FDA-Approved Heartworm Preventatives for Dogs and Cats**

A variety of products are available by prescription only:

- oral pill or tablet: ivermectin, milbemycin oxime
- topical liquid that the owner squeezes from a tube onto the pet's back: selamectin, moxidectin
- injectable (for dogs only): moxidectin

Clarke says owners need to have a conversation with their veterinarian about which type of heartworm

prevention is best for their pet. For example, pet owners with children should pay particular attention when using topical treatments and follow the directions carefully to minimize the child's exposure.

Heartworm preventatives are by prescription only—so beware of an internet site or store that will dispense medicine without a prescription, says Clarke.

Additionally, FDA monitors all heartworm preventatives for problems that may occur with use, such as unexpected side effects (*see link below*). Pet owners are encouraged to report any side effects to their veterinarian, the drug company, and the FDA. [FDA](#)

### **Report Adverse Drug Events to CVM:**

[www.fda.gov/AnimalVeterinary/SafetyHealth/ReportProblem/ucm055305.htm](http://www.fda.gov/AnimalVeterinary/SafetyHealth/ReportProblem/ucm055305.htm)

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